

## ABSTRACT

1           Multiple output streams of video and/or audio data are simultaneously  
2   generated from a large scale memory buffer array and sent to one or more customer  
3   devices for playback. The data is sent over networks, which use one or more  
4   protocols for data communication. Thus, for each network, a transport protocol stack  
5   is generated. The transport protocol stack is generated in hardware, thus greatly  
6   improving the throughput, and increasing the number of streams that can be generated.  
7   A wide data bus and wide address bus can be utilized because the protocol stack is  
8   generated in hardware, so that higher throughput can be achieved from the large scale  
9   memory buffer array. A plurality of protocol stack generators can have access to the  
10   same block of memory, allowing many output streams to be generated from a single  
11   copy of content in the large scale memory buffer array.